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August 15, 2006

## **Via Electronic Filing (ECFS)**

Ms. Marlene H. Dortch  
Federal Communications Commission  
236 Massachusetts Avenue, N.E., Suite 110  
Washington, D.C. 20002

Re: Facility ID No. 33543  
KATV(TV), Little Rock, Arkansas  
**Amendment to Interference Protection Deadline Waiver  
& Request for Immediate Action on Proposed Modified DTV STA  
MB Docket No. 03-15**

Dear Ms. Dortch:

KATV, LLC ("KATV"), licensee of KATV(TV), NTSC Channel 7/DTV Channel 22, Little Rock, Arkansas, by its undersigned counsel, hereby amends its pending request for a waiver of the July 1, 2005 interference protection deadline.<sup>1</sup> As demonstrated more fully below, KATV has been forced to revise the configuration of its maximized DTV facilities due to tower structure/safety problems that arose since it filed the initial interference protection waiver request. Because the reconfigured DTV facility proposed in the modified STA request will cover 97.5 percent of the population predicted to receive service from its Form 381, certified DTV facility, KATV requests a waiver of the interference protection deadline.

In addition, KATV also hereby requests immediate action on its proposed modified request for special temporary authority ("STA") that will allow it to increase its DTV power from 10 kW to 750 kW, provide DTV service to 390,000 more people inside the noise limited contour of its certified DTV facilities without creating additional tower structure/safety problems. Action on this modified DTV STA is needed now to allow KATV to begin providing

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<sup>1</sup> KATV is the ABC affiliate in the Little Rock-Pine Bluff, Arkansas DMA, which is one of the top-100 markets in the U.S. Accordingly, KATV's interference protection deadline was July 1, 2005. See *Second DTV Periodic Review Report and Order*, 9 FCC Rcd 18,279, ¶ 78 (2004) ("Second DTV Periodic Order").

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this virtually maximized DTV service while maintaining its current analog service.<sup>2</sup> The technical details of the modified STA proposal and additional background on the tower issues are set forth in the Engineering Statement filed with this amendment.

KATV has a maximized DTV construction permit to operate from its current analog transmission site with an ERP of 750 kW and an HAAT of 574 meters (1883 feet). *See* FCC File No. BPCDT-19991027ABF. KATV certified on Form 381 that it would build-out these facilities (or the equivalent thereof) on its post-transition DTV channel. *See* FCC File No. BCERCT - 20041105AWQ. On June 8, 2005, the Commission issued to KATV a tentative channel 22 designation for its post-transition DTV operations.<sup>3</sup> Following that designation and pursuant to the interference protection deadlines adopted by the FCC in the *Second DTV Periodic Order*, KATV was required to build-out its maximized DTV facility by July 1, 2005 because channel 22 is its DTV channel.<sup>4</sup>

KATV's initial request for a waiver of the July 1, 2005 interference protection deadline noted that despite substantial efforts to strengthen its 1859 foot broadcast tower, the tower was at or very close to its windload capacity.<sup>5</sup> As a result, KATV devised a unique technical proposal that would remove KATV's top-mounted, analog antenna and replace it with a combined channel 7/channel 22 antenna. This configuration was designed to allow KATV to operate its maximized DTV facility and maintain its full-power analog operation without increasing the windloading on the tower.

After filing its initial waiver request, KATV began the full-power DTV build-out. It purchased the transmitter and the combiner for the proposed channel 7/22 operation and was in the final stages of the antenna design/selection when it encountered difficulties finding a tower crew that would remove its 36,000-pound analog antenna. The removal of KATV's top-mounted, channel 7 analog antenna was made even more complicated by the KETS channel 2, analog antenna mounted immediately below the channel 7 antenna. KATV ultimately learned that its analog antenna could be safely removed only by helicopter and that there was just one helicopter in the entire country capable of handling the 36,000 pound analog antenna. The cost to use this helicopter for the removal/installation was approximately \$1 million.

On top of this extraordinary expense, KATV also became concerned about the structural integrity of its tower. During a strong wind storm in March of this year, the tower began flexing so much that KATV was forced to evacuate its transmitter building. This combination of events lead KATV to reconsider its proposal to install a combined channel 7/22 antenna on the top of its tower.

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<sup>2</sup> As indicated in the Engineering Statement, the proposed modified DTV STA operation will serve 97.5 percent of the population predicted to be served by KATV's maximized DTV construction permit.

<sup>3</sup> Public Notice, "DTV Tentative Channel Designations for 1,554 Stations Participating in the First Round of DTV Channel Elections," DA 05-1743, released June 23, 2005 & Accompanying Table.

<sup>4</sup> *See Second DTV Periodic Order*, ¶ 78

<sup>5</sup> The overall height of KATV's tower with the top-mounted analog antenna is approximately 2,000 feet.

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KATV has since changed tower consultants and stabilized its tower by adjusting its guy-wires. Its new tower consultant determined that KATV could safely side-mount a maximized, DTV-only, channel 22 antenna on the tower and add feedline to accommodate the authorized ERPs of both its analog and digital operations, provided that KATV's analog feedline currently on the tower was removed. Under this proposal, KATV's DTV antenna will remain side-mounted until the transition ends when it will replace the top-mounted, analog antenna. The proposed modified DTV STA follows the tower consultant's advice.

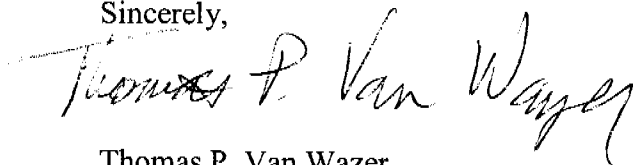
KATV estimates that it can complete construction and commence the proposed 750 kW ERP operation by the end of September 2006. KATV completed the necessary modifications to its transmitter building for the new DTV transmission equipment. Its new combiner is in the transmitter building and the new DTV transmitter and feed line are on site.

KATV submits that its amended request for a waiver of the interference protection deadline is decidedly in the public interest and should be granted. The proposed, modified STA will enable KATV to enhance significantly its DTV service -- increasing its ERP by a factor of 75 (10 kW to 750 kW) and providing DTV service to 97.5 percent of the population predicted to receive service from KATV's certified DTV facilities -- without making its existing tower structurally unsafe. This enhanced DTV service from the modified STA will enable KATV to provide ABC digital programming, including the many hours of HD programming the network now provides, to 390,000 more people in the Little Rock market. Moreover, the interference protection waiver will only be temporary because KATV will serve 100 percent of its certified facility's service population after the transition when its DTV antenna is moved to the top of the tower. For all these reasons, KATV requests that the Commission grant its amended request for a waiver of the interference protection deadline.

KATV recognizes that the Commission has yet to act on a number of pending interference protection deadline waiver requests. KATV nonetheless requests immediate action on its modified STA proposal so that it can provide improved DTV service as soon as possible. KATV recognizes that any action taken on the modified STA request will be without prejudice to the Commission's decision on its pending interference protection waiver request. To the extent this request for immediate action on the modified STA request departs from the Commission's standard repacking procedures, KATV submits that the 390,000 increase in population that will receive DTV service justifies the requested action.

Please direct any questions regarding this request to the undersigned.

Sincerely,

A handwritten signature in black ink, reading "Thomas P. Van Wazer". The signature is fluid and cursive, with the first name "Thomas" and last name "Wazer" being more prominent.

Thomas P. Van Wazer

Engineering Statement  
**REQUEST FOR SPECIAL TEMPORARY AUTHORIZATION**  
prepared for  
**KATV, LLC**  
KATV-DT Little Rock, Arkansas  
Facility ID 33543  
Ch. 22 750 kW 514 m

*KATV, LLC* (“*KATV*”), is the permittee of digital television (“DTV”) station KATV-DT, Channel 22, Little Rock, Arkansas. The paired NTSC facility is KATV(TV), NTSC Channel 7. Under its Construction Permit (“CP”, BPCDT-19991027ABF), KATV-DT is authorized to operate with an effective radiated power (“ERP”) of 750 kilowatts at an antenna height above average terrain (“HAAT”) of 574 meters. KATV-DT is currently operating pursuant to a Special Temporary Authorization (“STA”, BMDSTA-20040409ABN) that authorizes operation of KATV-DT with a reduced facility of 10 kW ERP and 461 meters antenna HAAT.

As part of the DTV channel election process, *KATV* elected the allotted DTV Channel 22 for KATV-DT in the first-round channel election (BFRECT-20050210AWI), and certified that it would operate the post-transition DTV facility based on the facility authorized in the CP (BCERCT-20041105AWQ).

In implementing the facility authorized in the CP, *KATV* has encountered massive problems related to the structural integrity of the KATV(TV) antenna supporting structure<sup>1</sup>. The original antenna specified in the CP called for a “stacked” DTV/NTSC antenna to replace the current KATV(TV) Channel 7 “traveling wave” antenna. An additional transmission line was proposed for use with the KATV-DT’s Channel 22 antenna. This plan would have overstressed the tower beyond acceptable safety limits, according to *KATV*’s structural consultant.

An alternative plan was conceived that would employ recent technological advancements in antenna design that would permit the use of a single, “common” antenna that would be suitable for use by both the Channel 7 analog and Channel 22 digital facilities. Further, a single 6 1/8” transmission line, in conjunction with a shared line “Tee” combiner, could be employed instead of two separate lines, thus further reducing the tower wind loading.

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<sup>1</sup> The KATV(TV) tower was erected in 1965.

## Engineering Statement

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The combined Channel 7/22 antenna would be physically shorter than the existing Channel 7 antenna it would replace. FAA approval for the reduced height was sought and received. The existing FCC Antenna Structure Registration (No. 1039813) for the tower was modified. Accordingly, a construction permit to modify the Channel 7 authorized radiation center was requested and subsequently granted (see BPCT-20050308ABM). The existing KATV(TV) Channel 7 transmitters were refurbished and adjusted to be able to provide the required increase in transmitter power output needed to overcome the reduced gain of the Channel 7/22 combined antenna at Channel 7.

KATV(TV) leases tower space to KETS(TV), analog Channel 2, Little Rock, Arkansas (see BLET-19870930KG). KETS(TV) employs a Dielectric THP-0-6-1-R panel antenna that is mounted around the tower structure just below the base of the Channel 7 top mounted antenna. The location of the KETS(TV) antenna prevents the use of a “gin pole” by erectors to install the new KATV antenna. Concerns were raised, that due to the condition of the KETS antenna, removal, even for a short period of time, was not advisable. Thus, helicopter cranes (or sky cranes) were considered as a replacement for the “gin pole technique” for removing the existing KATV Channel 7 antenna system. However, *KATV* found that none of the helicopters in service had the lifting capability to remove the existing Channel 7 antenna (which weighs over 36,000 lbs.).

Following some preliminary structural work, additional problems were encountered with the tower during high wind conditions that caused the tower to oscillate. The conditions were such that the transmitter building was evacuated during periods of high winds. Given the renewed concern about the tower’s structural integrity, *KATV* commissioned another structural study from a new structural engineering firm. The resulting study found that the guy wires would require re-tensioning to cure the oscillations during high wind conditions.

The new structural study also determined that an interim Channel 22 antenna could be side mounted on the tower below the KETS antenna in lieu of replacing the top mounted Channel 7 antenna in total. This separate antenna would still employ the same transmission line as the existing Channel 7 operation using a shared line “Tee” combiner.

Accordingly, because of the myriad of problems encountered with the tower, *KATV* now plans to implement the full DTV CP “post-transition”. At that time, the KETS Channel 2 panel antenna will be removed from the tower permitting the use of “gin pole techniques” to safely remove the old Channel 7 antenna. The side mounted Channel 22 STA antenna proposed herein will then be relocated to the top of the tower structure in accordance with the CP.

Until that time, *KATV* requests Special Temporary Authorization to operate KATV-DT using a side mounted Channel 22 antenna. The STA facility proposed herein will employ a non-directional, horizontally polarized antenna, Dielectric model TFU-30GTH-R 04 with 0.75° of electrical beam tilt. An ERP of 750 kW is the maximum ERP that can be achieved due to the limitation of transmitting equipment and components that have already been purchased and installed. Other technical parameters for the proposed operation are provided in the attached **Table 1**.

The map attached as **Figure 1** supplies a comparison of the presently authorized and proposed 41 dBμ noise-limited DTV service contour locations<sup>2</sup>. No extension in contour location will result, in compliance with the Commission’s August 3, 2004 “freeze” concerning expansion in service area.<sup>3</sup> Further, **Figure 1** also demonstrates that the principal community will be encompassed by the proposed facility’s 48 dBμ contour.

As mentioned earlier, acquired equipment limitations prevent increasing the ERP for the proposed STA facility above 750 kW. Accordingly, a study was performed to determine how much of the population covered by the authorized CP facility would receive service from the proposed STA facility. The results of the study indicate that 97.5% of the population predicted to receive service from the CP facility will receive service from the STA facility. Further, the number of persons that would receive service from the STA facility exceeds the number of persons that receive service from the existing Channel 7 analog facility as shown below:

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<sup>2</sup> The pertinent coverage contours for the current KATV-DT STA (BMDSTA-20040409ABN) are also shown in **Figure 1** for comparison purposes.

<sup>3</sup> *Public Notice* “Freeze on the Filing of Certain TV and DTV Requests for Allotment or Service Area Changes,” DA 04-2446, released August 3, 2004.

## Engineering Statement

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### KATV-DT Population Determination

<u>KATV(TV) Facility</u>	<u>ERP/HAAT</u>	<u>Interference-Free Service Population (2000 Census)</u>	<u>Percent Match Of CP Facility</u>
NTSC Ch. 7 (1997 baseline facility)	316 kW / 591 m	1,054,334	97.0%
DTV Ch. 22 CP BPCDT-19991027ABF	750 kW / 574 m	1,087,397	--
DTV Ch. 22 STA BMDSTA-20040409ABN	10 kW / 461 m	664,471	61.1 %
DTV Ch. 22 Proposed STA Facility	750 kW / 514 m	1,060,133	97.5 %

### **Human Exposure to Radiofrequency Electromagnetic Field**

The proposed STA operation was evaluated for human exposure to radiofrequency energy using the procedures outlined in the Commission's OET Bulletin No. 65 ("OET 65"). OET 65 describes a means of determining whether a proposed facility exceeds the radiofrequency exposure guidelines adopted in §1.1310. Under present Commission policy, a facility may be presumed to comply with the limits specified in §1.1310 if it satisfies the exposure criteria set forth in OET 65. Based upon that methodology, and as demonstrated in the following, the proposed transmitting system will comply with the cited adopted guidelines.

The proposed KATV-DT antenna will have a center of radiation 515.1 meters above ground level. An ERP of 750 kilowatts, horizontally polarized, will be employed. According to elevation pattern data provided by the antenna manufacturer (please see **Figure 2**), the KATV-DT antenna has a relative field of 10 percent or less from 10 to 90 degrees below the horizontal plane (i.e.: below the antenna). Thus, a value of 10 percent relative field is used for this calculation. The "uncontrolled/general population" limit specified in §1.1310 for Channel 22 (center frequency 521 MHz) is 347.3  $\mu\text{W}/\text{cm}^2$ .

OET 65's formula for television transmitting antennas is based on the NTSC transmission standards, where the average power is normally much less than the peak power. For the DTV facility in the instant proposal, the peak-to-average ratio is different than the NTSC ratio. The DTV ERP figure herein refers to the *average* power level. The formula used for calculating DTV signal density in this analysis is essentially the same as equation (9) in OET 65.

$$S = (33.4098) (F^2) (ERP) / D^2$$

Where:

$S$	=	power density in microwatts/cm <sup>2</sup>
$ERP$	=	total (average) ERP in Watts
$F$	=	relative field factor

**Cavell, Mertz & Davis, Inc.**

$D$  = distance in meters

Using this formula, the proposed facility would contribute a power density of  $0.95 \mu\text{W}/\text{cm}^2$  at two meters above ground level near antenna support structure, or 0.27 percent of the general population/uncontrolled limit. At ground level locations away from the base of the tower, the calculated RF power density is even lower, due to the increasing distance from the transmitting antenna.

§1.1307(b)(3) states that facilities contributing less than five percent of the exposure limit at locations with multiple transmitters (such as the case at hand) are categorically excluded from responsibility for taking any corrective action in the areas where their contribution is less than five percent. Since the instant situation meets the five percent exclusion test at all ground level areas, the impact of the any other facilities using this site or at a nearby site may be considered independently from this proposal. Accordingly, it is believed that the impact of the proposed operation should not be considered to be a factor at or near ground level as defined under §1.1307(b).

### **Safety of Tower Workers and the General Public**

As demonstrated herein, excessive levels of RF energy will not be caused at publicly accessible areas at ground level near the antenna supporting structure. Consequently, members of the general public will not be exposed to RF levels in excess of the Commission's guidelines. Nevertheless, tower access will continue to be restricted and controlled through the use of a locked fence. Additionally, appropriate RF exposure warning signs will continue to be posted.

With respect to worker safety, it is believed that based on the preceding analysis, excessive exposure would not occur in areas at ground level. A site exposure policy will continue to be employed protecting maintenance workers from excessive exposure when work must be performed on the tower (or on nearby towers) in areas where high RF levels may be present. Such protective measures may include, but will not be limited to, restriction of access to areas where levels in excess of the guidelines may be expected, power reduction, or the complete shutdown of facilities when work or inspections must be performed in areas where the exposure guidelines will be exceeded. On-site RF exposure measurements may also be undertaken to



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establish the bounds of safe working areas. The applicant will coordinate exposure procedures with all pertinent stations.

**Conclusion**

Based on the preceding, it is believed that the instant proposal may be categorically excluded from environmental processing under Section 1.1306 of the Rules, hence preparation of an Environmental Assessment is not required.

**Certification**

The undersigned hereby certifies that the foregoing statement was prepared by him or under his direction, and that it is true and correct to the best of his knowledge and belief.



Richard H. Mertz

August 11, 2006

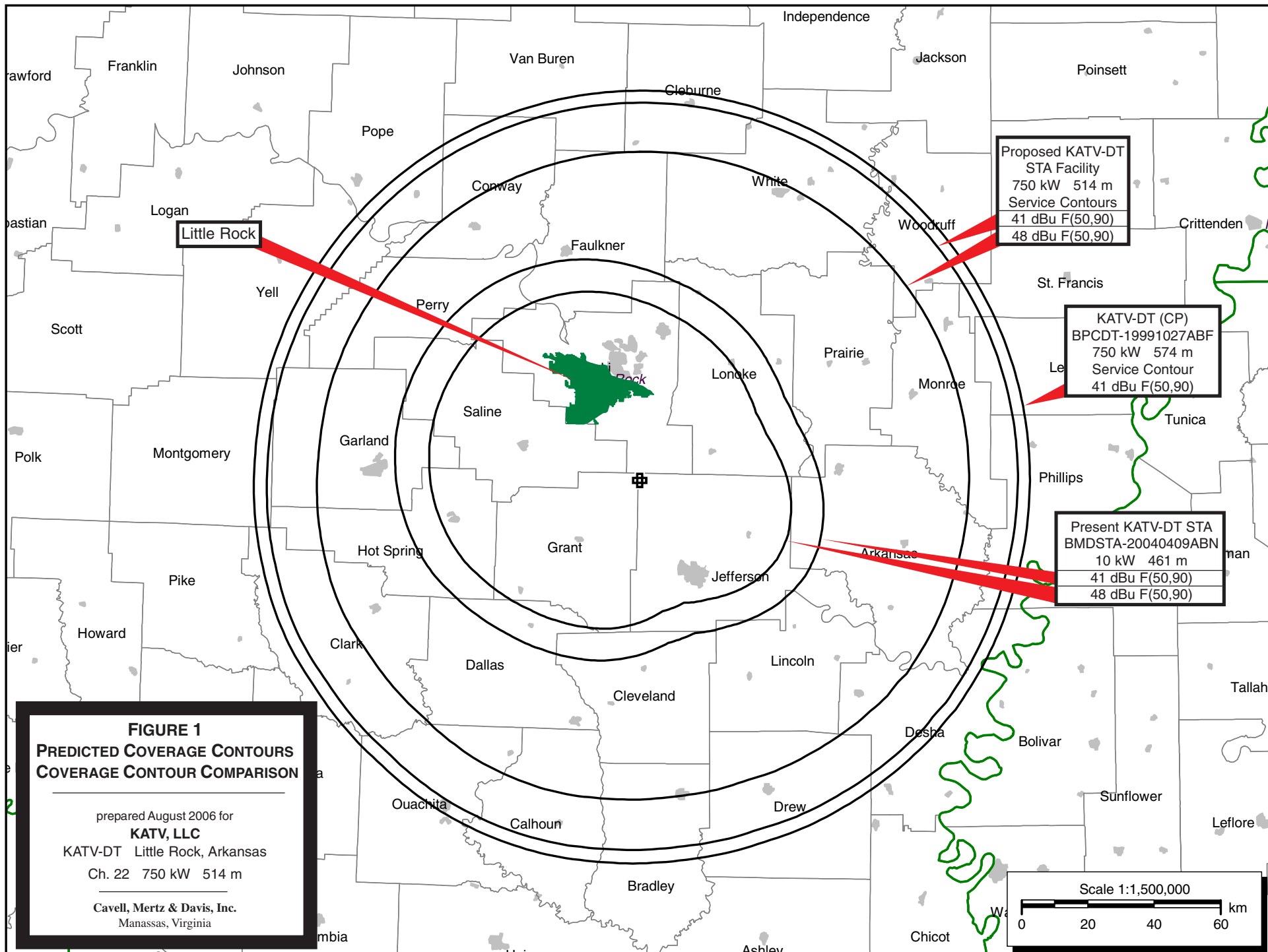
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List of Attachments

Table 1	Proposed Operating Parameters
Figure 1	Proposed Coverage Contours / Coverage Contour Comparison
Figure 2	Antenna Vertical Plane (Elevation) Relative Field Pattern

Table 1  
**PROPOSED OPERATING PARAMETERS**  
prepared for  
**KATV, LLC**  
KATV-DT Little Rock, Arkansas  
Facility ID 33543  
Ch. 22 750 kW 514 m

Site Coordinates	34° 28' 24" N 92° 12' 10" W (NAD-27)
Antenna Structure Registration Number	1039813
Radiation Center	598.0 meters above mean sea level 514.2 meters above average terrain 515.1 meters above ground level
Effective Radiated Power	750 kilowatts (28.75 dBk)
Antenna	Dielectric TFU-30GTH-R 04 Gain 27 (14.31 dB) Non-directional, Gain 27 (14.31 dB) 0.75° electrical beam tilt. Horizontal Polarization
Transmission Line:	6 1/8" EIA 50 Ohm Transmission Line 533.4 meters in length 1.94 dB Loss
Shared Line "Tee" Combiner	0.20 dB Loss
Transmitter Power Output:	45.5 kW (16.58 dBk)





Proposal Number **C-00354**  
Date  
Call Letters **KATV-DT** Channel **22**  
Location **Little Rock, AR**  
Customer  
Antenna Type **TFU-30GTH-R 04**

## ELEVATION PATTERN

RMS Gain at Main Lobe **27.00 ( 14.31 dB )** Beam Tilt **0.75 deg**  
RMS Gain at Horizontal **18.70 ( 12.72 dB )** Frequency **521.00 MHz**  
Calculated / Measured **Calculated** Drawing # **30G270075-90**

